

STATE OF TENNESSEE TREASURY DEPARTMENT

REQUEST FOR PROPOSALS # 30910-40819 AMENDMENT # 2 FOR GOODS OR INVESTMENT RISK ANALYTICS SYSTEM, TOOLS AND SERVICES

DATE: DECEMBER 17, 2018

RFP # 30901-40819 IS AMENDED AS FOLLOWS:

1. This RFP Schedule of Events updates and confirms scheduled RFP dates. Any event, time, or date containing revised or new text is highlighted.

EVENT	TIME (central time zone)	DATE	Confirmed or Updated
1. RFP Issued		November 28, 2018	Confirmed
2. Disability Accommodation Request Deadline	2:00 p.m.	December 3, 2018	Confirmed
3. Notice of Intent to Respond Deadline	2:00 p.m.	December 5, 2018	Confirmed
4. Written "Questions & Comments" Deadline	2:00 p.m.	December 10, 2018	Confirmed
State Response to Written "Questions & Comments"		December 17, 2018	Confirmed
6. Response Deadline	2:00 p.m.	December 20, 2018	Confirmed
7. State Completion of Technical Response Evaluations		January 4, 2019	Confirmed
8. State Schedules Oral Presentations		January 7, 2019	Confirmed
9. Oral Presentations		January 16, 2019- January 23, 2019	Confirmed
State Completion of Oral Presentation Evaluations		January 24, 2019	Confirmed
11. State Opening & Scoring of Cost Proposals		January 25, 2019	Confirmed
12. Negotiations (Optional)		January 25, 2019 – February 1, 2019	Updated
State Notice of Intent to Award Released <u>and</u> RFP Files Opened for Public Inspection		February 1, 2019	<mark>Updated</mark>
14. End of Open File Period		February 7, 2019	Updated

15. State sends contract to Contractor for signature		February 8, 2019	Updated
16. Contractor Signature Deadline	2:00 p.m.	February 14, 2019	Confirmed

2. State responses to questions and comments in the table below amend and clarify this RFP.

Any restatement of RFP text in the Question/Comment column shall <u>NOT</u> be construed as a change in the actual wording of the RFP document.

	QUESTION / COMMENT	STATE RESPONSE	
1	Whether companies from Outside USA can apply for this?	Yes	
2	Whether we need to come over there for meetings?	In accordance with the terms of the Pro Forma Contract, the contractor will be required to be on site during implementation if the State so requests, and for training and customer service if required by the Contract.	
3	Can we perform the tasks (related to RFP) outside USA? (like, from India or Canada)	Yes, except for on-site requirements.	
4	Can we submit the proposals via email?	The requirements for submission are detailed in Section 3.2 of this RFP.	
5	What is the estimated cost of the Investment Risk Analytics Systems, Tools, and Services for Fixed Income Products?	Respondents should submit a cost proposal in accordance with the requirements of the RFP. Note that the technical response must not reference cost.	
6	Has the Department allocated funding for the Investment Risk Analytics Systems, Tools, and Services for Fixed Income Products yet? If so, through which source (budget, CIP, state/federa grant, etc.)? If no funding is secured, which sources will be sought and when? If utilizing a grant, would you be able to specify which one?	The State has allocated appropriate funding for the services sought by this RFP.	
7	When does the Department want this solution to be implemented by?	No later than June 30, 2019	
8	What other systems will have to integrate or interface with the Investment Risk Analytics Systems, Tools, and Services for Fixed Income Products, and what vendor provides each system?	The State's master custodian's platform, cash flow modeling system and order management system.	
9	Does the Department need to replace or upgrade any of the integrated systems in the next 5 years? If so, which system and when?	The State assesses its systems on an ongoing basis and makes changes when appropriate.	
10	What vendor provides the current Solution? When does the contract expire?	There is no current vendor for this solution.	

QUESTION / COMMENT	STATE RESPONSE		
11 Who is the technical contact and/or project manager for the Investment Risk Analytics Systems, Tools, and Services for Fixed Income Products?	The State will assign a technical contact prior to implementation.		
12 Does the Department anticipate any professional or consulting services may be needed through separate procurements to accomplish this effort? (i.e. project planning/oversight, PM, QA, IV&V, staff augmentation, implementation services etc.)? If so, what services does the Department desire and how do they anticipate to procure?	No		
13 Aside from this solicitation, is the Department looking into any other technology projects within the next 3 years? If so, what kind?	The State assesses its needs on an ongoing basis and makes changes when appropriate.		
 What are the drivers for these project(s)? How does the Department plan to procure the potential project(s)? When does the Department want them to be implemented? 			
14 As some of the information sought in the response to the RFP is confidential in nature, we anticipate submitting a redacted version of our response as part of our submission along with the unredacted version. Please confirm that only the redacted version (and not the unredacted version) of the response will be made available to public inspection	No. The State is subject to the open records requirements of Tennessee law. All responses to this RFP will be available for public inspection beginning at the time the State issues the Notice of Intent to Award.		
15 Can you share the expected number of unique	ABS 118		
CUSIPs for the following securities? A range is	AGENCY-CMO 42		
also useful if you can't provide an exact number	AGENCY-MBS 579		
CLOs, CDOs and leveraged loans ADO ADO ADO ADO ADO ADO ADO ADO ADO ADO	CASH EQUIVALENT 54		
U.S. ABS and CMBSAgency MBS and agency CMO	CDO 2		
- Agonoy MDS and agonoy SMS	CF-CLO-LL 75		
	CMO-Other 106		
	CORPORATE BONDS 716		
	FUTURES 15		
	MUNICIPAL 25		
	PREFERRED STOCK 3		
	Sovereign 7		
	US AGENCY 13		
	US TREASURY 169		
16 Due to compliance limitations most (if not all) clients are unable to fill out the reference forms but they are open to have a call. Can you please	The State will not accept phone calls in lieu of reference forms. References are not mandatory but are instead evaluated pursuant to the terms of		

	QUESTION / COMMENT	STATE RESPONSE
	confirm this will be acceptable?	Section B of the RFP.
17	How much of the RFP (technical and commercial proposal) will be made open for public inspection? Will the vendor RFPs be posted anonymous or tied to the business names?	See response to Question 14 above.
18	On A.13. – Regarding, the ability to incorporate third party data feeds, could you please elaborate on the type of data required? Ex. Admin data, holdings, benchmark/index data, market data.	The State seeks a solution that would incorporate all third party data feeds, including all of those referenced in this question.
19	For the scheduled Oral Presentation, will this be through a web presentation similar to the RFI or on site?	The State requires an on-site presentation. In addition, the State will require oral presentations from the top five ranked respondents. Accordingly, Section 5.2.1.6. is amended by deleting the language in its entirety and replacing it with the following language so that, as amended, the section shall read:
		The Solicitation Coordinator will invite the top five (5) ranked Respondents to make an oral presentation. The ranking will be determined after the Technical Response score is totaled and ranked (e.g., 1—the best evaluated ranking).
20	On C.7 Does your solution support the direct transfer of data from outside financial institutions using SFTS sites or the like? If yes, please list the institutions you currently work with. Explain how the Respondent will obtain data from the State's custodian.	The State intended to include "SFTP sites" here instead of "SFTS sites." Accordingly, the RFP is amended by deleting question C.7. in its entirety and replacing it with the following, so that, as amended, the question shall read:
	Could you please provide some background on SFTS?	Does your solution support the direct transfer of data from outside financial institutions using SFTP sites or the like? If yes, please list the institutions you currently work with. Explain how the Respondent will obtain data from the State's custodian.
21	For section C.9, does the state require a narrative or simple yes/no answer for each security type?	The State requires a Yes/No answer for the items in C.9.
22	Our referral clients that match the State's criteria have requested whether referrals can be provided by phone. If not, the referral document will need to pass through their legal/compliance teams, which they may not be able to complete by the deadline:	See response to Question 16 above.
	a) Will the state accept referrals that answer the stated questions via phone?	
	b) If not, will the State extend the referral	

QUESTION / COMMENT		STATE RESPONSE	
	deadline?		
23	Referencing section 6.3, Cost Proposal & Scoring Guide, our pricing will include a combination of enterprise and per user fees. Can you please define the "per unit" measure being used? Does 1 unit = 1 user? How many individual users will the State be including?	No. Each unit is a quarterly license fee. The State anticipates ten (10) different users as indicated in Section A.2. of the <i>Pro Forma</i> Contract, and the quarterly license fee should reflect this number of users. Accordingly, Section A.2. of Attachment 6.6 (Pro Forma Contract) is amended by deleting the language "eight (8) concurrent State users" and replacing it with the following language so that as amended, the language shall read "ten (10) concurrent users."	
24	C.5 - Does your platform have a collateral management component? What specific workflows and tasks do you consider collateral management?	Measuring liquidity and margin calculation.	
25	A.11. Provide a statement indicating that the Respondent's product is able to upload historica data related to the program's past performance for use in modeling and historical analysis.	Beyond historical returns, historical data would include holdings and price. Yes, this information will be used for both ex-post and ex-ante risk analysis.	
	This item mentions historical data "related to the program's past performance". What data beyond the program's historical returns would be sent? Will this information be used for both ex-post and ex-ante risk analysis?		
26	A.12. Provide a statement indicating that the Respondent's product is able to model into performance attribution and risk measurement. Could we have clarification around the wording of this item? Should we comment on our ability to incorporate risk measurement in performance attribution via factor-based performance	Yes, respondents should explain their ability to incorporate risk measurement in performance attribution via factor-based performance attribution through risk models.	
	attribution through risk models?		
27	Vendor is not typically deployed/licensed as a "Stand Alone" Risk and Performance system. Would the State be willing to expand the scope of the RFP to include Accounting?	No	
	Project Structure Questions 29 - 33		
28	What duration does the State anticipate the project will take?	See response to Question 7 above.	
29	Who is the sponsor(s) of the project?	The State will assign a sponsor prior to implementation.	
30	Please describe (a) the State organization and governance for this project, and (b) the level of interaction that is desired with the consulting	The State will assign appropriate technical and subject matter resources prior to implementation. The State anticipates implementation to be a	

QUESTION / COMMENT			IENT	STATE RESPONSE
	team (within the project oversight dimensions established, to operate on an integrated or independent basis with the State staff)?			highly interactive process.
31	What is the expectation of reporting and face-to face meetings with senior the State or Board members at the conclusion of the project?			See response to Question 2 above.
32	2 Will the State provide a project resource(s) to aid with knowledge and access to accounting and investment management operating information that team needs to uptake?			Yes
	Operating Str	ucture Questic	ons 34 – 37	
33			and headcount in	See the TCRS Annual Report found at http://www.treasury.state.tn.us/TCRS Report/201 7/TCRS-CAFR-2017.pdf
	Investment	Accounting/Finance	Human Resources	
	Risk Management	Information Technology	Project Management	
	Operations	Compliance/ Legal/Audit	Other	
34	34 Does the State have an operating model description (and approximate year of its first use)?			No
35	35 Has staffing benchmarking been utilized by the State and when was this last performed for the functions impacted by this assessment/analysis?			No
36	Have prior RFPs been issued for any non- investment management assignments in the past 3 years affecting the support services organizations or systems? What are their statuses (executed, in-progress, suspended or not acted upon, etc.)?			The State has issued several RFPs in the last three years, but it is unclear what is meant by this question. Accordingly, the State cannot provide a response.
	Investment Allocation and Risk Questions 38 - 42			
37	7 Does the State contemplate a change in the percentage of assets actively managed internally that could change materially (>5%) during the next 5-7 years?			The State assesses its investments needs on an ongoing basis and makes changes as they are deemed appropriate.
38	Is the State considering the addition of new asset classes (i.e. energy, commodities, etc.) or investment strategies that materially differ from			The State assesses its investments needs on an ongoing basis and makes changes as they are

	QUESTION / COMMENT	STATE RESPONSE
	those currently in place (including changes to portfolio leverage)?	deemed appropriate.
39	Is there any plan to internally manage non-North American investments?	The State assesses its investments needs on an ongoing basis and makes changes as they are deemed appropriate.
40	With respect to Investment Risk Management, is the risk system currently integrated with either the State Street or internal IBOR or does the State use a separate risk platform integrated with the IBOR data? If separate, what is that platform (vendor or internally created), and how long has it since been deployed?	No. The State utilizes an internally created platform that has evolved over a period of years.
41	How does the State manage its counterparty exposure? Is this performed through the existing IBORs or elsewhere?	This is an internal process using no specific platform.
	Technology and Operations Questions 43 - 50	
42	Where does the State combine the results of both the State Street (external managers) and the State in-house IBOR (internal managers) results? Where does the consolidated ABOR or general ledger reside, and what is this platform (3rd party system or proprietary)?	The State does not have a specific platform for performing this function.
43	Does the State utilize a cash management/collateral management platform, o is this performed with the existing IBORs or elsewhere?	The State does not have a specific platform for performing this function.
44	Does the State outsource its securities lending to an agent program, or does it direct its own securities lending? If internal, what systems platforms are currently in use?	No. The State's securities lending program will not utilize the services sought through this RFP.
45	Beyond straight trade clearance/custody and asset servicing, does the State outsource any 'middle office services' (e.g. collateral valuation and calls, including OTC derivatives) to the master custodian?	Yes
46	How is the State's internal IBOR integrated/synchronized with the master custodian's records? For order/trade processing? For corporate actions?	This question is not applicable to the services sought through this RFP.
47	What data repositories exist, either internally or externally today, and how robust is the data management program the State employs to-date (i.e. staff levels, quality metrics, strict golden security master compliance, formal valuation	The State utilizes its master custodian for this purpose.

	QUESTION / COMMENT	STATE RESPONSE
	challenges/sign-offs internally and with vendors, etc.)?	
48	Does the State deploy their own custom developed systems within the scope of the assignment? If yes, what general areas of usage do these systems cover? For each major one, could the age and type of platform (Oracle, COBOL, .net) also be disclosed for each platform?	No
49	Are there any major technology or non- technology (operational outsourcing, new investment team, etc.) initiatives in flight currently?	The State assesses its technology needs on an ongoing basis and makes changes as they are deemed appropriate.
	Administration/Accounting/Finance questions 51 - 52	
50	In addition to the official IBOR platform at State Street recording investment activity, does the State utilize an ABOR system for its public markets accounting (fund level) for items such as performance or other fees, other allocated expenses? If yes, is that system an industry 3rd party platform, or just a generic general ledger platform?	No
51	For public markets portfolios, does the State outsource anything besides its external fund manager accounting to a 3rd party? If yes, is the 3rd party the master custodian?	Yes, the State outsources certain functions to the master custodian.
	Performance Questions 53 - 58	
52	What Performance system does the State utilize today, and when was it put into service? Is this system associated with its primary custodian (i.e. provided as part of an outsourcing deal), or paid for by the State but integrated with the custodian? • Please describe the level of ex-post risk	The State does not utilize such a system.
	reporting. • Please describe the ex-ante risk approach.	
53	Is there an investment overlay program (e.g. macro hedging)? If so, is attribution specific to the overlay?	Yes; yes.
54	Is the net-of-fee calculation inclusive of all costs associated with managing the assets (e.g. facilities costs)?	This question is not applicable to the services sought through this RFP.
55	What is the current timeframe that performance	Fiscal year, monthly and daily
	the overlay? Is the net-of-fee calculation inclusive of all costs associated with managing the assets (e.g. facilities costs)?	sought through this RFP.

	QUESTION / COMMENT	STATE RESPONSE	
	is calculated for, and will this change over time?		
56	What types and level of performance attribution does the State utilize today?	Duration, yield, key rates, and sectors	
57	Does the State utilize customized benchmarks currently in its published performance results, either to its Board of Trustees or internally for CIO/Management reporting purposes (or intend to do so in the future)?	Yes. See the response to Question 33 above.	
Re	porting Questions 59		
58	What other reporting systems, if not the same as the performance reporting systems, if any, are currently utilized, in addition to general business intelligence software (e.g. Tableau, Crystal, Business Objects, etc.)?	Bloomberg and Yieldbook	
59	As our contract is specifically tailored to our product offering, we will be utilizing our standard legal paper since contracts are executed, on average, 187 days sooner utilizing this method. Would the State object to using our paper as a starting point?	Yes. The State requires use of the <i>Pro Forma</i> Contract attached to the RFP. Product-specific information will be attached as Attachment A to the Contract.	
60	Out of respect for our clients and due to clients being out of office with holiday schedules, we would prefer to provide reference questionnaires between the response deadline and scheduling of oral presentations. What adjustments can you make to accommodate?	References that respondents wish to include as part of their responses must be included with the responses and submitted in accordance with the schedule included in Section 2.1 of the RFP.	
61	What is the allocated annual budget for this project?	Respondents should submit a cost proposal in accordance with the requirements of the RFP. Note that the technical response must not reference cost.	
62	What is the total market value of assets the State is planning on running through the portfoliomanagement system it is seeking?	Approximately \$14 billion	
63	How many custody accounts does the State have that would be run through the system? Are other custodians outside of State Street Bank and Trust used?	Approximately 20	
64	On average, what is the number of monthly transactions that occur?	Approximately 1,000	
65	Does the State manage all assets for this projec internally or are external asset managers utilized for any portion of the assets?	Internally	

	QUESTION / COMMENT	STATE RESPONSE
66	What is the makeup of the portfolio by security type percentage the State is planning on running through this system (e.g., 30% Treasuries, 20% MBS, 20% Corporates, etc.)?	See table attached as Exhibit A to this Amendment 1 to the RFP.
67	Please describe in detail the current problems the State is hoping to solve by contracting with a vendor for fixed income portfolio management systems.	The State does not currently have a vendor that provides the services sought by this RFP. The State is seeking a vendor to provide these services.
68	What are the titles of the main users who will be using this system?	Portfolio managers
69	What departments or internal and external stakeholders will also utilize or view the output o data from this system?	Department of Treasury and Tennessee Consolidated Retirement System ("TCRS") leadership, including the TCRS Board of Trustees
70	Outside of fixed income analytics, what other responsibilities do the users of the proposed solution have in relation to the investments?	Portfolio management
71	Does the State run all of its assets through its Bloomberg order management system? If not, what other systems are used or how is data transmitted to the State?	Yes
72	Since accounting numbers are a big part of various performance return calculations, how is the State planning on integrating accounting numbers into the system? Who currently provides the accounting numbers? Is the State open to considering a system that integrates accounting numbers with performance automatically?	The State's master custodian (currently, State Street) provides these services.
73	Can we mark up RFP? We cannot accept the "Contract between the State of Tennessee and Contractor" which culminates on page 58.	No. A respondent must execute the Statement of Certifications and Assurances as part of the response, which includes a requirement that the respondent agrees to the terms and conditions of the <i>Pro Forma</i> Contract. After the Notice of Intent to Award, there can be no substantive changes to the <i>Pro Forma</i> Contract, though regulatory requirements can be addressed and Product specific requirements may be detailed in Attachment A.
74	Please provide us with a security master list sorted by security type so we can give you an accurate estimate.	See the Holdings Classification Listing attached as Exhibit A.

3. Section 2.1 of this RFP is amended by adding the following as number 12 and renumbering the other sections in the Schedule of Events accordingly:

12. Negotiations (Optional) 4:30 p.m.

- 4. Section 5.2.1.6. of this RFP is amended by deleting the language in its entirety and replacing it with the following language so that, as amended, the section shall read:
 - The Solicitation Coordinator will invite the top five (5) ranked Respondents to make an oral presentation. The ranking will be determined after the Technical Response score is totaled and ranked (e.g., 1—the best evaluated ranking).
- 5. Section 5.2.3. of this RFP is amended by deleting the language in its entirety and replacing it with the following language, so that as amended, the section shall read:
 - 5.2.3. <u>Clarifications and Negotiations</u>: The State reserves the right to award a contract on the basis of initial responses received, therefore, each response shall contain the Respondent's best terms and conditions from a technical and cost standpoint. The State reserves the right to conduct clarifications or negotiations with one or more Respondents. All communications, clarifications, and negotiations shall be conducted in a manner that supports fairness in response improvement.
 - 5.2.3.1. <u>Clarifications</u>: The State may identify areas of a response that may require further clarification or areas in which it is apparent that there may have been miscommunications or misunderstandings as to the State's specifications or requirements. The State may seek to clarify those issues identified during one or multiple clarification rounds. Each clarification sought by the State may be unique to an individual Respondent, provided that the process is conducted in a manner that supports fairness in response improvement.
 - 5.2.3.2. <u>Negotiations</u>: The State may elect to negotiate with one or more Respondents by requesting revised responses, negotiating costs, or finalizing contract terms and conditions. The State reserves the right to conduct multiple negotiation rounds or no negotiations at all.
 - 5.2.3.3. <u>Cost Negotiations</u>: All Respondents, selected for negotiation by the State, will be given equivalent information with respect to cost negotiations. All cost negotiations will be documented for the procurement file. Additionally, the State may conduct target pricing and other goods or services level negotiations. Target pricing may be based on considerations such as current pricing, market considerations, benchmarks, budget availability, or other methods that do not reveal individual Respondent pricing. During target price negotiations, Respondents are not obligated to reduce their pricing to target prices, but no Respondent is allowed to increase prices.
 - 5.2.3.4. If the State determines that it is unable to successfully negotiate a contract with the apparent best evaluated Respondent, the State reserves the right to bypass the apparent best evaluated Respondent and enter into contract negotiations with the next apparent best evaluated Respondent.
- 6. The following Section 5.2.4. is added to this RFP:
 - 5.2.4. <u>Total Response Score</u>. The Solicitation Coordinator will calculate the sum of the Technical Response section scores and the Cost Proposal score and record the resulting number as the total score for the subject Response (refer to RFP Attachment 6.5., Score Summary Matrix).
- 7. Section C.7. of Attachment 6.2 of this RFP is amended by deleting the language in its entirety and replacing it with the following language, so that, as amended, the section shall read:

Does your solution support the direct transfer of data from outside financial institutions using SFTP sites or the like? If yes, please list the institutions you currently work with. Explain how the Respondent will obtain data from the State's custodian.

8. Section A.2. of RFP Attachment 6.6 (*Pro Forma* Contract) is amended by deleting the language "eight (8) concurrent State users" and replacing it with the following language:

"ten (10) concurrent State users."

9. RFP Amendment Effective Date. The revisions set forth herein shall be effective upon release. All other terms and conditions of this RFP not expressly amended herein shall remain in full force and effect.

Exhibit A

Security Type	#	Base Market Value	% of Total
ABS	118	446,241,867	2.80%
AGENCY-CMO	42	236,173,426	1.48%
AGENCY-MBS	579	3,464,423,989	21.72%
CASH EQUIVALENT	54	741,393,723	4.65%
CDO	2	3,502,705	0.02%
CF-CLO-LL	75	245,545,709	1.54%
CMO-Other	106	595,971,947	3.74%
CORPORATE BONDS	716	4,039,729,125	25.33%
FUTURES	15	721,600,000	4.52%
MUNICIPAL	25	86,435,268	0.54%
PREFERRED STOCK	3	15,816,045	0.10%
Sovereign	7	80,174,492	0.50%
US AGENCY	13	81,710,406	0.51%
US TREASURY	169	5,192,391,946	32.55%
	1,924	15,951,110,649	100%